J. Raptor Res. 31(3):289 © 1997 The Raptor Research Foundation, Inc.

TWO PLUMBEOUS KITES (ICTINIA PLUMBEA) CAPTURE SWALLOW

The Plumbeous Kite (Ictinia plumbea) is a common but poorly studied raptor of the neotropics, ranging from Mexico to northern Argentina and Paraguay (L. Brown and D. Amadon 1968, Eagles, hawks and falcons of the world, McGraw-Hill Book Co., New York, NY U.S.A). This species feeds mainly on insects (A.F. Skutch 1947, Condor 49:25–31; F. Haverschmidt 1962, Condor 64:154–158), but vertebrates, including birds and bats, make up a small percentage of its diet (N.E. Seavy et al. 1994, J. Raptor Res. 29:65–66). Likewise, birds, including swallows and swifts, and bats have been recorded as prey items for the similarly insectivorous Mississippi Kite (Ictinia mississippiensis) (J.W. Parker 1988, pgs. 166–186 in R.S. Palmer [ED.], Handbook of North American birds, Vol. 4, Yale Univ. Press, New Haven, CT U.S.A.). We know of no published accounts, however, of either species capturing small birds by tandem hunting.

On 6 June 1994, we were observing a Plumbeous Kite nest in Tikal National Park, Petén, Guatemala. The nest contained one 21-d-old nestling. Both adults were perched approximately 100 m from the nest in a large cedro (*Cedrela mexicana*) tree. The area between the adults and the nest was a large open plaza covered with short grass. At 0659 H, one of the kites flew from its perch passing within 1 m of a flying Northern Rough-winged Swallow (*Stelgidopteryx serripennis*). The swallow flew down and away and the kite dived unsuccessfully again on the fleeing swallow, which at this point was no more than 1–2 m above the ground. On a third dive, the kite again missed, and the swallow took cover, perching in the short grass. As this kite was making a fourth dive, the second adult kite also dived from its perch toward the grounded swallow. As the first kite dived, the swallow flushed and was caught by the second kite in its feet no more than 2 m above the ground. The first kite followed the second kite for a short distance and then returned to perch in the cedro. The second kite flew to the nest and fed the swallow to the nestling.

Cooperative hunting can allow raptors to take larger or more elusive prey with increased success compared to solo hunting (D.P. Hector 1986, *Ethology* 73:247–257; J.C. Bednarz 1988, *Science* 239:1525–1527). Based on the social foraging classes defined by Ellis et. al. (1993, *Bioscience* 43:14–20), our observation qualifies as either "pseudocooperative hunting" (group attacks by a variable number of individuals on large or elusive quarry, without division of labor or sharing of prey, though success is enhanced) or "cooperative pair hunting" (involving only two birds, clear division of labor and at least limited prey sharing).

Tandem hunting occurred only once during 127 foraging attempts we observed from perches. Most attempted prey captures were directed at insects. In comparison, 29% (102 of 349) of all Aplomado Falcon (*Falco femoralus*) foraging attempts observed by Hector (1986, *Ethology* 73:247–257) involved pursuit by two falcons. Of these tandem hunts 66% were directed at birds and only 2% at insects. Though probably not important in the pursuit and capture of insects and other small prey, tandem hunting may allow the Plumbeous Kite to increase success in occasional attacks on elusive prey such as birds.

This is a contribution of the "Maya Project," a conservation research effort of the Peregrine Fund, Inc. Financial support was provided by Robert Berry, Crystal Channel Foundation, Fanwood Foundation, Gold Family Foundation, KENNETECH/U.S. Windpower, the John D. And Catherine T. MacArthur Foundation, Mill Pond Press, National Fish and Wildlife Foundation, Norcross Foundation, Hank and Wendy Paulson, Pew Charitable Trusts, Andrés Sada, Joe and Flinda Terteling and the U.S. Agency for International Development. P.H. Bloom, D.H. Ellis, L. Kiff and K. Meyer provided helpful comments on an earlier draft of this manuscript.—Nathaniel E. Seavy, 17142 Lemolo Shr. Dr. N.E., Poulsbo, WA 98370, U.S.A., Mark D. Schulze, Botany Dept., 208 Muellor Bldg., Penn. State Univ., University Park, PA U.S.A. and David F. Whitacre, The Peregrine Fund, Inc., Boise, ID 83709 U.S.A.